

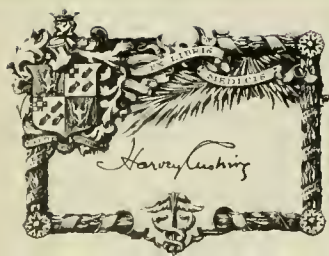
# Preparedness for Health

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Ether Day Address

1916











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BY  
HAVEN EMERSON, M.D.

NEW YORK

*Commissioner of Health*

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## PREPAREDNESS FOR HEALTH\*

BY HAVEN EMERSON, M.D.,

*Commissioner of Health, City of New York.*

Your yearly meeting to pay a debt of gratitude to those who made possible a gentler art of diagnosis, a quicker and safer skill in treatment and cure, has brought forth such tributes that I may safely leave the honors earned as they appear upon the record.

How suitable is our place of assembly, this generous and spacious building, the centre from which the guiding hand will direct the hospital family, the storehouse of priceless inventories of physicians' labors, the custodian of still unexplored treasures certain to bring forth gifts at the "open sesame" of the diligent student, broad in scope and with a view to future usefulness far beyond the imagination of the founders of this great educational institution!

To mobilize the knowledge and service of to-day is a privilege no less than to advance bit

\* Address delivered at the Massachusetts General Hospital, on the seventieth anniversary of Ether Day, October 16, 1916.

by bit the borderline of facts. And here we see provision for the one and opportunity for the other. To my mind, the best hospital is the one which succeeds in keeping the largest number of people out. To prevent the little disorder of today from becoming the serious operative risk of tomorrow is an ideal to which that greatest of all parts of a hospital, the clinic or dispensary, is devoted. But why wait until the patients come to complain? Why not entice them to come to libraries, lectures, friendly personal visits, such intimate consultations for advice as have made the name of family physician, village minister, and parish priest beloved the world over?

Many of the big troubles the patients bring to your doors have their little beginnings in carelessness, misinformation, lazy habits, weak character and self-indulgence, and when you have set them on their feet and returned them home with a God-speed, you are not rid of them unless you have taught them while you have treated them.

The hospital of the future—and surely none by its past has so well earned the right to be among the greatest in the land for all time as this one—will have on its records and to its credit a file of histories marked: "Case not admitted: sickness prevented by education."

"To be used; that is the sublimest thing we know." So the gentle David Grayson inadvertently described the wish and hope of the servants of the common good who enjoy their work for the work's sake.

It is by co-operation and not merely by competition; by the persuasion of helpful ideas and not with destruction of things or people; it is in being for a principle and not by being against persons that the spirit of preparation and patriotism is developed in a community. Preparedness—to make ready beforehand, to make ready for some particular purpose or service, to put things in suitable order, to be in a state of readiness, to adjust, to adapt,—this is the plan of the prudent citizen. Disagreement upon this is impossible, at least to the occidental.

For what, then, shall we be in readiness? To what shall we adjust ourselves? What shall be the nature of our preparations?

The answers will be as various as the ambitions of each one of you. In this great household of relief, this home of the helping hand, the privilege may be allowed me to take it for granted that at the moment you think of and feel, with one accord, the overwhelming call to make this country not only a place for freedom in religious observance and freedom of

speech, but a land free from the burden of preventable disease.

"Preventable" is a word to conjure with, for no sooner is the true cause of sickness announced than the possibilities of prevention come knocking at the door. So we see the whole array of philosophy and science assaulting the mountains of ignorance and returning from time to time with new trophies, called by the physicians the etiological factors, the specific or determining causes of disease. It is upon no short and easy path we are set out. The goal will continue to recede, the list of preventable diseases continue to grow, and by so much will our duty be enlarged.

If we can believe the somewhat dim records of early civilization, infectious and epidemic diseases were recognized then, and to meet them, racial and religious habits developed. Later, when mankind created an artificial environment and began to try his hand at wresting pleasures and comforts from resistant nature, there came upon him misfortunes created by his own personal habits. Again we find restraint and advice supplied by governments of church or state.

When man thereafter began to exploit not only nature but his fellow man, there sprang a host of new and insidious diseases which

have made such inroads upon community and national existence in all lands that a voluminous body of civil law has been created in an effort to correct the health hazards of industry. With fair accuracy, then, we may divide the problem of health protection into:

1. The prevention of communicable diseases.
2. The correction of habits which determine or contribute to premature death.
3. The prevention of industrial hazards.

Under one of these three headings we can properly place most of the activities of the present-day campaign for health as a personal or a community problem. But bear with me a moment while I call to mind a preliminary which should be observed before attempting any new experiment. For a control and to establish a measure of results, we must know how many are there of us, how many are the annual recruits in the nurseries, and what the afflictions are that draft so many to the army of the silent.

As the bookkeeper and accountant are the recorder and analyst of business transactions, so the registrars of births and deaths provide the means of assessing the results of public health administration.

What community is so dull as to be uninter-

ested in its continued existence? Self-interest drives the sick patient to seek relief from pain and disability by appeal to his family physician. Shall not the village, city or state require at least an equivalent service of diagnosis, prevention and treatment for its various disturbances of community function, the destruction of its several members?

The merchant accepts past experience as a guide to the need of future supplies; the salesman counts on publicity and education to create a demand for his wares. Shall our cities or our nation ignore their greatest asset and fail to count the daily loss of lives as inexcusable? And yet—to our shame, be it said—we, who claim to be a civilized nation, have still so cheap a notion as to life and death that we are without a national registration law or uniform state laws demanding the reporting of births and deaths.

In the councils of the world there is no record of the accomplishments of the United States as a whole in the field of preventive medicine and sanitation. True, honor is given to the great men of science produced here, but neither the birth rate nor the death rate of all the states is known. Are we so young, so satisfied with local accomplishments and excellences that we can remain indifferent to the

insufficiency of the very elements upon which constructive social statesmanship must be founded? Only 66 per cent. of the population of the United States live in states where the registration of deaths is compulsory, and less than 31 per cent. live where registration of births is required. Only two-fifths of the area of the United States are included in the registration area for deaths, and but 10 per cent. of the land area of the United States is included in the registration area for births. Failing the national figures, which should have been available for the past hundred years, I may be excused if I use the records of New York City, which has just completed a half century of experience with a department of public health.

The yearly death rate has fallen from 29 per thousand to 14 per thousand of population.

Deaths from cholera, smallpox, yellow fever, typhus fever and malaria have all but disappeared from our records. In the first ten years there were 6,260 deaths from smallpox. In the past ten years there were 7.

Deaths from tuberculosis, typhoid fever, puerperal fever, infantile diarrhea, diphtheria and scarlet fever have shown a reduction of from 50 per cent. to 90 per cent. in this half century.

Since the incorporation of the greater city in 1898, the yearly death rate has been reduced 31 per cent.

But best of all is the brilliant result of the scientific attack upon the infant mortality rate which has fallen from 242 per 1,000 living births in 1891 to 98 per 1,000 births in 1915, and in the past five years, from 170 to 98 per 1,000 births. Whereas only 80 per cent. of the babies born in 1898 lived through their first year, now more than 90 per cent. survive. When this saving of lives was begun there were those whose lack of confidence and information did not carry the conviction that this baby saving was an ultimate benefit to the community. Thanks to the data now available, we can answer with courage and certainty that the saving continues right up to school age and that the babies saved are the worth-while lives. The deaths were not inevitable and merely postponed a few months or a year or two. If the death rate of 1866 had prevailed in 1915, we should have lost in New York City last year 88,000 people who are now living.

The details of the methods by which these results were obtained in New York City, as in other cities and states here and abroad, need not concern us. This is not a year to dwell upon past victories but to take thought lest in



the onrush of events we find ourselves complacently satisfied with our successes while our neighbors, and, in terms of national existence, our competitors, may soon be striding past and beyond.

Remember that while there are the thousands killed in Europe in battle, more people are killed by preventable disease annually in this country than the annual loss of any nation in the present war.

Let us rather face the record and plan for our own more creditable future. To pick out three typical failures, we may properly consider why we still lose our thousands from tuberculosis, alcoholism and among industrial workers.

Out of 75,000 deaths a year, we lose 31,000 from causes which are largely, if not wholly, preventable. Last year, in New York City, with a total population of 5,602,841 and a total death list of 76,193, there were 10,249 deaths from tuberculosis, and 1,597 deaths admitted to be due directly to alcohol, and as all pathologists and physicians in general hospitals or private practice know, the recorded deaths from alcohol represent but a fraction of the deaths really attributable to this drug, if not as the sole factor, as a contributory or determining cause.

There were 2,596 deaths from diphtheria, scarlet fever, measles and whooping cough, and may I, in parentheses, ask you to note that this is our annually recurring number and is larger by more than a hundred than the total deaths from poliomyelitis in our recent epidemic.

Preventable accidental deaths numbered 3,509, exclusive of deaths from violence and homicide and suicide.

We still lose 13,866 children under a year of age.

If we count at least 10 cases of sickness or temporary disability for each of the deaths above listed, we reach a total of 317,000. Evidently there is sufficient work ahead to keep us upon the tip-toe of endeavor.

In tuberculosis the first defect in control comes when the physician fails to make an early diagnosis. This failure must be shared equally by the patient and the private practitioner. One hardly ever sees an early case of pulmonary tuberculosis in our colored population. They are childlike in their optimism and they neglect even the simplest precautions. They fail to obtain medical advice of any kind until seriously disabled. They must be taught to seek advice earlier, a need worthy of a great leader.

When the state sanatorium for incipient tuberculosis was first opened at Raybrook, N. Y., early cases were sent only by a few physicians in some of the large cities, and this state of affairs persists to a serious degree at the present time, so that it is apparent that patients must call the physician earlier and the standards of diagnosis must be raised before we can make maximum use of our present knowledge as to the arrest of the disease. Perhaps the solution will come through a habit of annual or semi-annual medical examination of everyone, and such a habit would justify the time, attention and small cost involved if for no other reason than that many a case of tuberculosis would thus be noted and be promptly put in the curable class.

Twenty physicians of the Health Department examined 20,357 food handlers last year and found 1 in 1,000 suffering from pulmonary tuberculosis. When 1,116 private practitioners for pay examined 26,300 in the same industrial group, they found 1 among 3,700 tuberculous.

There was a similar and equally serious discrepancy in the incidence of venereal diseases, as reported by the two groups of physicians. The Department of Health physicians discovered, among the 20,357 food handlers examined, 111 syphilitics and 22 cases of gonorrhea.

The private physicians discovered, among the 26,300 food handlers examined, 7 syphilitics and 5 cases of gonorrhea. Of the 5 cases of gonorrhea, all but one were reported by the examining physician of a large railroad corporation.

There is much food for thought in these results. The clinical material under observation was as nearly uniform in the two groups as can well be imagined. The examining physicians of both groups were, in the main, graduates of the medical schools of New York City.

In the case of the private practitioner there was the opportunity of a new and considerable source of income, and remuneration in fair proportion for the time consumed, and there was the same responsibility to detect disease as is assumed when a patient calls at a physician's office frankly complaining of sickness. The food handlers considered themselves healthy when applying for examination.

The Department physicians, drawn from the same professional ranks, working on a salary, were responsible for a methodical performance of a set task under the supervision of trained diagnosticians, and they discovered proportionately 3.7 times as many cases of pulmonary tuberculosis as did the private physicians. And to make it quite clear to you that the Depart-

ment physicians, working at the occupational disease clinic and not trained as specialists in tuberculosis were well within the mark, I must remind you that there are a little over seven cases per 1,000 of the population in the city at large.

The query is inevitable; are private practitioners in the by and large ready to detect disease in people who assert that they are healthy? Is the public sufficiently protected at present, if the symptoms of disease must be declared by the patient before it is named and treated by the physician?

As patients come to the tuberculosis dispensaries in New York City, the story is too often told that the family physician has been treating for weak lungs for some time, but has never examined the bared chest or made a microscopic examination of the stained sputum. Unless such stories become a thing of the past, the community will revolt against medical services upon a personal basis. Such medical service is disgraceful and should not be tolerated. Excusable, perhaps, before 1882, when Koch proved the tubercle bacillus to be the cause of the disease, or before 1819, when Laennec demonstrated tubercular disease of the lungs by physical examination of patients, but generations of physicians have been taught

since then, and still there are physicians who practice tongue and pulse medicine, blissfully oblivious that diagnosis is capable of treatment as an exact science.

With our present knowledge, secondary cases of tuberculosis in a family are a needless waste of life. We know the cause, and enough of the mode of transmission to prevent infection, but it is easier to treat from an office chair by pen and pill, than to become the actual teacher and family instructor in the home, weeks and months on end, so that the facts known are used by the people exposed.

Are we forever to await the call of the sick patient before giving service? Must we sit by and see that for every 1,000 children living in certain blocks of every city, many will become infected with a preventable disease as to which we know the specific cause and the means of transmission?

If New South Wales has found it possible to have every person examined by competent physicians, every infected person isolated or so controlled at home as to break the endless chain of transmission, and thus to bring pulmonary tuberculosis to an end in that commonwealth and prevent the entrance of infected people in the future, is there not a service worthy of an effort here? Is it good

government, or utter social neglect to permit incompetent physicians to continue to practice years after they have ceased to learn or have become incapable of applying the facts upon which prevention of disease must rest? Is not the public interested?

Shall we continue to permit the construction and occupancy of buildings, in every city in the country and in many of our rural regions, unfit for human needs and certain to lend themselves to the development and perpetuation of sickness?

And with syphilis it is no different. Eight per cent. of push cart peddlers have been found to be syphilitic; 25 per cent. of the children and adults admitted to a great orthopedic hospital show positive Wassermann reactions.

Here, again, we are confronted with the dual failure. The spreader of the disease fails to obtain diagnosis and treatment that will put an end to his particular infection, and the physician fails to report the disease and insist upon such personal habits and persistence of treatment as will alone prevent danger to others. Have we the courage to adopt an honest and rational program such as has recently been established by law in Western Australia, and has been in force in Denmark for the past 10 years? This law holds the pa-

tient and the physician equally responsible, the patient to obtain immediate treatment and persistent care until cured, the physician to report the case, teach, caution and treat the patient, if necessary at public expense and under restraint, until the possibility of transmission is at an end.

Why allow competition to determine the distribution of medical services? Why is there one physician to three hundred and fifty-six persons in Hampstead and one physician to five thousand five hundred and eighty-two in Shoreditch in London? Why is the proportion in New York City one to five hundred and eighty-nine in Manhattan and The Bronx, and one to fourteen hundred in Queens. After a man or woman has been taught through the endowments of elementary schools, colleges, medical schools and hospitals, and has arrived at the age of from 25 to 30, so far unproductive, are we to consider that the community owes them a living or that they owe the community a life?

Is competition for money to determine the future progress of the graduated physician or is he to be a public servant drilled and trained to play a most responsible part in our modern economic and social structure? Is the public need to determine their training, their location



and their income, or will these all be determined by the question of largest financial return? Physicians have committed themselves to a process of voluntary self-elimination, and society will not easily accept them now or in the future on the basis of individual competition for money, which determines the number and distribution and capacity of other professional groups.

Shall the physician continue to be at the beck and call of the lady with a severe case of lack of occupation, and must he kowtow to the business magnate whose disease-breeding tenements are largely responsible for the consumption rate?

Shall the hospital be filled by those who want to go and can afford the price, or by those now waiting outside, whom the dispensary physician knows must lead a handicapped existence for lack of the very luxury of rest in bed, from excess of which My Lady Do-Nothing suffers? The wrong people are generally in hospitals. The selection is made more by means than by needs.

Shall the hospital retain the seclusion of its walled privacy and await the coming of the lame and fevered, or shall it become a high school for health, with extension lecturers, a reference library on personal hygiene, a centre

for organized consultation, a seat of preventive medicine?

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We lose each year in New York as many lives from alcoholism as the devastating epidemic of infectious colds cost the City of New York last winter, as many as all the deaths from the epidemic of poliomyelitis which has raised the whole eastern coast of this country to a point of panic. And what is to be done, and what has been done to prevent these regiments and more from marching this year, as last, out of New York City to the graveyards? Education coupled with enthusiasm must not be mistaken for fanaticism. Legislation has never changed habits, but may follow a change in popular convictions.

To convince the people of this country that the use of alcohol internally is to their disadvantage would seem a simple matter to anyone with an elementary understanding of physiology and the action of the anesthetic group of drugs.

What nurse or doctor, who has had a hospital service, but has seen enough to make each one a permanent crusader for a non-alcoholized society? And yet we find physicians permitting the use, condoning its use, yes, pre-

scribing alcohol with a freedom which cannot but make them pause and consider when the stories of the habitues come to their ears. So strong is the inertia of habit, so vast the momentum of large industries, that it will take years of teaching to wean our people from this, their worst dietary enemy. Must we wait for a national calamity to shock us into appreciation of the extravagance of our wasted lives? I think it is fair to say that no single thing would make so immediate a change in the whole list of causes of death in adults as the abandonment of the use of alcoholic beverages. Every group of preventable diseases in adults would show a diminution in incidence and in death rate. And among children, too, it predisposes to various ills and weakens resistance to infections.

The education of public opinion and private habits is at present the only reasonable and promising measure at the service of the public health officer and the private practitioner in the effort to have the general use of alcoholic beverages—and the largest single cause of poverty and sickness—abandoned. Other habits, also, as to housing, eating, personal cleanliness, recreation, etc., are certain to be modified by education, and in no other way.

As to the third class of general conditions in which we now fail to protect and prevent, the most recent, and in many ways, the most interesting as a public health problem, I shall ask you to note the widespread interest in tariff protection for the new chemical industry so extensively developed here from force of circumstances abroad. The halls of Congress were vigorously assailed in the interest of those who saw our opportunity, with governmental support, for the creation of a great and lucrative commerce at home and abroad. Protection is what they clamored for; protection of the chemical products against the keen and undoubtedly effective competition certain to develop when the bans are again removed from international trade.

More attention has been paid to the protection of industrial workers in Germany than anywhere else in the world, and the most recent report indicates that in the large chemical works in Germany, with the improved sanitary conditions, the sick rate is 54.9 per cent. of all employees per annum, with an average duration of sickness in each case of 17.8 days.

Among 185,820 employees in the chemical industry in Germany, in 1905, there were 163,522 cases of sickness, or 88 per cent. of all employees, with an average duration in each case of sickness of eight days.

Let the public take an active interest with the employer and the employee to see that the workman, who produces, is protected in this country, for it is obvious to the student of causes of death that the protective tariff upon a product may prove too high a price to pay for the doubtful security of carrying on with profit trades which throw back into the community so many disabled workmen.

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Are not the lessons of the day clear enough for us to see that the population of the wards of the hospitals is the measure of our inefficiency?

How many admissions to the wards are sufferers from preventable defects? Strike off your hospital census those who have tuberculosis, or syphilitic lesions, and where is your overcrowded ward?

Count off the patients disabled from neglect of hazards of occupation, count those who pay their final reckoning for the life-long use of alcohol, and you see a dwindling line of beds and a short service in the operating room.

What the autopsy table is to the visiting physician and the surgeon, the hospital ward is to the health officer. There he is faced with his failures.

And why, you ask me, did I take the trouble to expose the failures or shortcomings of our present system, or lack of it, in view of the record of accomplishment of the past fifty years? Briefly, because the promise of the future cannot be fulfilled unless and until all physicians co-operate for the public good as well as competing for private livelihood, and unless we make available for all, services in diagnosis, prevention and treatment of disease of the quality which now is doled out at a price for the few, given freely to the very poor, but unobtainable for people of moderate means.

One competent physician, in touch with and capable of using the resources of special diagnostic laboratories and free to call consultants to his aid, will replace ten bunglers who at present survive only because the ignorance of their patients is denser than their own; will save more lives, abbreviate sicknesses and at a cost far less than the tax for inefficiency now paid by the uninformed public.

Whether by organization, by endowment or by state employment, it seems to me that there must come a change in the basis of medical practice.

Preparedness for health in any state or community requires for the prevention of communicable disease, accuracy in early diagnosis by

the family practitioner and such means and knowledge as to care and treatment as will shorten the period of communicability to the minimum and limit the contact between the sick person and the rest of the community to those who are insusceptible or to places where the conditions of residence and supervision will prevent exposure.

Segregation of the infected individual in hospitals and sanatoria should become so universal for all communicable diseases that general hospitals and private establishments would serve the purpose now met chiefly at state and municipal expense. The pest house is the mediaeval conception which still clings about the idea of an isolation building. There should be a cheerful welcome and adequate provision for communicable diseases in every general hospital, with a medical and nursing service capable of a technique equivalent to that of aseptic surgery, which can meet the modern needs of sanitary science, and bring results in treatment and cure as brilliant and creditable to physicians as have been contributed by the surgeons. The public would be better protected, the treatment of infectious diseases would be improved, doctors and nurses would learn much which now they miss in a general service.

To alter habits which we know diminish resistance to disease, and limit the capacity for intelligent endeavor and put a serious burden upon the community because of dependency in later life, we must teach the children of the schools, the parents in the homes, the men and women in the shops and factories, the patients and dependents in our dispensaries and hospitals, such simple truths as will encourage them to require and maintain clean, light and airy living rooms, to avoid entirely the use of alcohol and patent medicines, to proportion their food to their needs and to consider physical fitness not only a priceless inheritance, but its maintenance a national duty.

Before the inevitable victory over industrial disabilities can be complete, or the abatement of conditions which cause an annual loss from avoidable illness equal to the national debt, is accomplished, it must be borne in upon the minds of those who employ their fellow men that of more value than the product is the producer. The employers, the public and the employees are jointly responsible for conditions causing sickness among wage-earners and their families. The employer's legal responsibility is generally limited to the places of employment and working conditions. The public is responsible for community conditions com-



mon to all classes of citizens. The greater share of the burden as to cost and remedy lies upon the workman himself, but as he is unable to meet this responsibility single-handed, it rests with the public and the employer to share with him the cost and to determine the character of the service needed.

Thirty-five per cent. of the wage-earners of this continent must ask for public or private charity when disabled by disease. Shall it be said that we are so selfish, so short-sighted, so wasteful, that we prefer to pay a bill for damages when health and time and economy are all to be had by paying for prevention?

The burden of giving free treatment to the victims of industrial hazards can no longer be carried by the medical profession. When the state, the employer, and the employee contribute to defray the cost of medical services for the prevention and relief of occupational disease, it will be reasonable to expect the medical profession to submit to a degree of periodic re-examination and continued compulsory training which, up to the present time, has existed only in the medical branches of our Federal Services. In the medical services of our Federal Government re-examination is required periodically even to remain in grade, and advancement is only on examination. At-

tendance at post graduate medical courses periodically is compulsory.

In the Department of Health of the City of New York advancement from grade to grade in the medical positions cannot take place without competitive examinations. Failure to earn average rating for efficiency for three successive quarter years of service results in the bringing of charges of incompetency against a physician.

Why allow all the glory to go to those who have reduced the death rates in the occupation least productive of national progress, the occupation of arms?

Between 1880 and 1916 the death rate among the native troops in India was reduced from 41 to 3.7 per thousand, and for British troops in India from 24.8 to 4.3; and similar results are within our reach in the vastly larger army of industry.

Of what avail to keep the policeman in perfect health if the families he protects from violence and theft are allowed to suffer from loss equally discreditable to representative government?

Scientific co-operative medical service promptly summoned and consistently obeyed; education in the ways of right living, from the training of the expectant mother, through the

schooling of her child, and until the new home is started in the next generation, union of effort by the state, the employer and the employee, to prevent wastage from occupational disease,—upon these principles of action must our social program for national service be built.

It is not a conflict with the popular clamor for a military and naval preparedness that I suggest, not a hindrance to commercial preparedness for greater national wealth, but a warning of the futility of both of these without the assurance that the first need and greatest asset of a nation, its health, should take the leading place in your thoughts.

In closing, may I quote from that sensitive student, that sharp analyst of society in the last century, Thomas Carlyle: "Men cannot live isolated. We are all bound together for mutual good or mutual misery as living nerves in the same body. No highest man can disunite himself from the lowest."

There is nothing so democratic as disease, no bond so strong as the appeal of suffering fellow men.

I beg of you to consider the merits of the philosophy of prevention of disease, a worthy development of modern medicine, and I ask you to devote at least part of your lives to the encouragement of preparedness for health.





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Author

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